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AMERICAN JOURNAL OF PHOTOGRAPHY

AN ILLUSTRATED MONTHLY
DEVOTED TO PHOTOGRAPHY
IN ITS WIDEST SENSE

Vol. XX

SEPTEMBER, 1900

No. 237

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AMERICAN JOURNAL OF PHOTOGRAPHY—SEPTEMBER, 1900



In the Pyrenees—Spanish Shepherd

AMERICAN JOURNAL OF PHOTOGRAPHY

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VOL. XX

SEPTEMBER, 1900

No. 237

THE RHINE FROM MAYENCE TO COLOGNE.

SYLVESTER S. GARRETT.

OF the world's great rivers, each possesses a distinctive charm of its own; the historic Nile, which winds as it has for centuries amid ruined grandeur, the blue Danube, pride of Austria, and our own Hudson, all command our admiration; but that portion of the Rhine between the modern cities of Mayence and Cologne is without a rival and presents many opportunities for the use of the camera.

The traveler from the south takes one of the fine express steamers which leave Mayence in the early morning. Having passed under the long bridge at Mayence the swiftly moving vessel soon passes Bingen and the little island with the Mouse-

Tower, in which the cruel bishop Hatto met his well-merited punishment.

As the river narrows, its banks grow high and commanding and the traveler catches glimpses of old feudal castles, partly in ruins, with turret and wall crumbling with age.

Occasionally the entire pile rears itself against the sky and



Village on the Rhine SYLVESTER S. GARRETT

one can then form an idea of the strength of these island fortresses. Gutenfels was situated on one of the strongest of these, "Schlossen." At this point in the river is an island called the Pfalz, on which were stationed, during mediaeval times, a guard whose duty it was to exact a toll from all vessels passing either up or down the stream. The proceeds of this arbitrary levy filled the coffers of the baron whose castle crowns the heights of Gutenfels.

The voyager looks over the steamer's side to see the character

of this legend-haunted river. On quiet days, the Rhine has a greenish-yellow tint and flows swiftly and quietly, because of its great depth. Large vessels, having passed the bars and perils of navigation which beset its mouth, can sail far up into the heart of the Empire; consequently the stream has the greatest value as an avenue of commerce, and we cannot wonder at the importance which was placed upon its possession by Germany. With Alsace and Lorraine in the hands of the



Rheinstein (Ruined Castle)

SYLVESTER S. GARRETT

French, the upper waters of the Rhine were accessible to an enemy, and the foresight of Bismarck and the German commanders told them of the strategic value of the province to its possessors.

There were periods of doubt and uncertainty in the history of the Fatherland when it was merely an aggregation of small kingdoms; when the "Deutschen Rhein" was dangerously near being in hostile hands. It was during one of these wars that the stirring German Hymn, "Die Wacht am Rhein," was written.



Modern Castle on Rhine SYLVESTER S. GARRETT

Interesting though the ruined castles are, the modern eye delights to rest upon the castles of the present, one of which is here shown. It is easy to imagine the difficulties which would beset the unwelcome visitor to this stronghold. The disastrous result of an encounter on the parapets it would not be difficult to conjecture. To the left of the castle, and nestling close to its wall, is the family chapel. Religion as well as war was thought of by the architect.

The steamer now enters shallows, and high cliffs line the shores. On rounding the base of a rugged bluff, the traveler feels proud to realize that his eyes rest upon the Lorelei rock, famed in song and story. "And gently flows the Rhine," says the song. For on one of the rocks which beset the navi-

gator on all sides the Lorelei maiden used to sit and comb her wavy locks, while luring the hapless sailor to her by captivating gestures and songs. The modern sight-seer is, alas! deprived of the pleasure of meeting this fairy, as the march of progress brought about by the German navigation interests has, with the aid of dynamite, rudely shattered her perch and her beautiful song is hushed.



The Lorelei Highlands

SYLVESTER S. GARRETT

The city of Coblenz is the half-way point for the large steamers. From this city to the North Sea the Rhine is more like an American river; where had been castles a few hours before are now farm-houses and vineyards. Opposite Coblenz is the great fort Ehrenbreitstein, the Gibraltar of the Rhine—impregnable, to all appearance. Above it floats to-day the Kaiser's flag, and the beat of drums tells of a numerous garrison. Across the river at this point stretches a heavy pon-

toon bridge, which is opened to admit the passage of large vessels.

At a distance of a few miles from Ehrenbreitstein is one of Krupp's gun factories, which is in communication with the fort by either rail or river. For, as we often notice at home, there is a railroad on either bank, and occasionally the race between steamer and train waxes exciting, especially when the latter is handicapped by having to make numerous stops.

A curious legend is brought to our notice late in the afternoon when near the journey's end, a story which like many another is old, yet ever new. It involves a dragon, a princess, and an intrepid swain and, to keep the reader from suspense, they all, including I presume, the dragon, lived happily ever after, as is the case in well-regulated legends. At this place there are two hills, one on either side of the Rhine; the one on the left is known as Roland seck, the one to the right as Drachenfels. On the banks of the former, Roland, the swain, passed his artless childhood, while across the stream, in a gloomy, grimy cave, lurked the dread dragon; that curious fire-eating lizard which now seems to be extinct. To the tender care of this creature was confided, by a heartless parent, the beautiful princess. She languished without a lover for several weary years, although princes, kings, emperors, and potentates generously strove to relieve her solitude. Of course it was understood that her hand was to be the prize of the dauntless fellow who intimidated the dragon and gained her side. The method pursued by Roland to attain this end seems to have been lost, which we must not regret, however, as it is most unlikely that dragon-hunting will ever again be followed as a calling. Nevertheless the fact remains that the dragon was subdued and came meekly to Roland's call with his tail between his legs, while the princess was born off in triumph. It is refreshing, after hearing so many unlikely stories for a traveler at last to encounter one so well authenticated.

The country becomes flat and uninteresting toward the journey's end, and the church-spires of Cologne are a welcome sight. The old city was originally a Roman camp, and near the celebrated Cathedral are the walls of an old stone altar, half-buried in the "sands of time."

Of modern attractions Cologne has her full share, and pos-

sesses priceless treasures of art and architecture. It is in the Wallraf-Richarts Museum that the exquisitely beautiful painting of Queen Louise is on exhibition. There are few critics who will not concede that this portrait is the finest ever created. It breathes with life, the tender coloring of the beautiful woman's cheeks and the radiance of her eyes fairly seem to exist in reality. It is one of these few paintings which commands universal admiration. The name "Konigen



Street in Cologne

SYLVESTER S. GARRETT

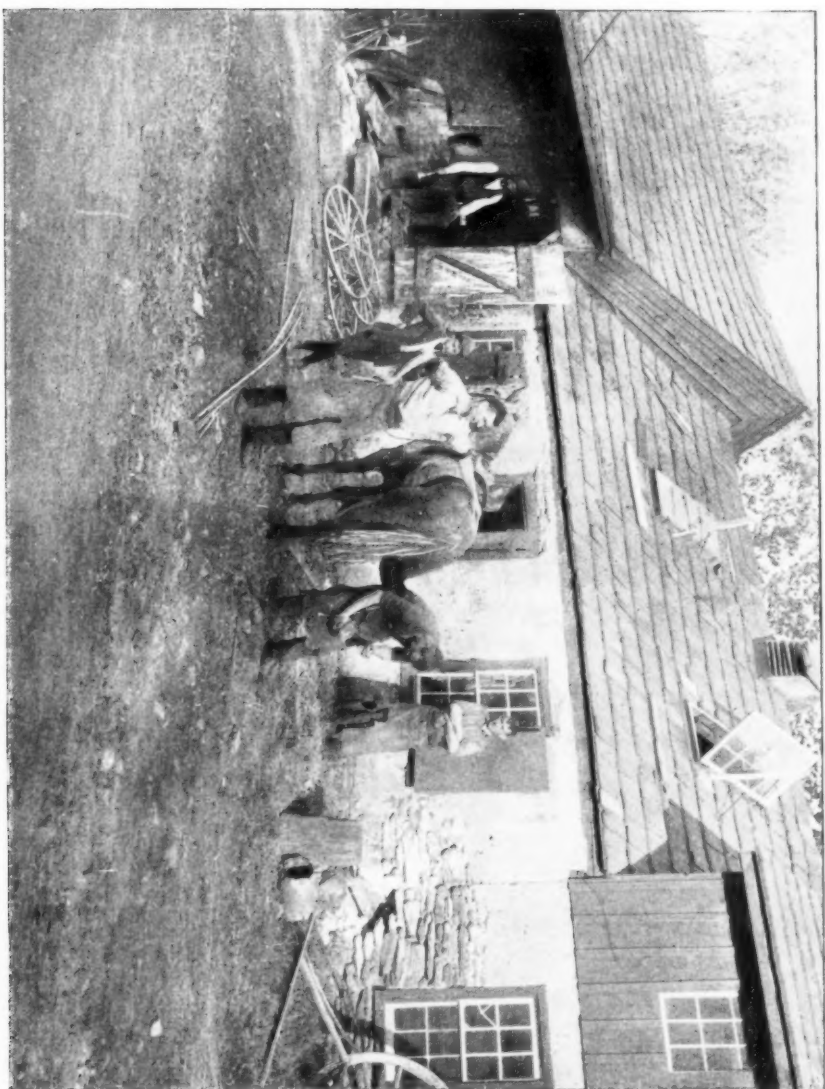
Luise" is held sacred by every Prussian because of her fearless intercession on behalf of her country with the implacable Napoleon, early in this century. Hers was a beautiful womanhood coupled with a lovely character, and one who once sees her image as portrayed by the skill of Gustav Richter will never forget it.

The great Cologne Cathedral is the center of attraction to the lover of the beautiful in architecture; in the eyes of many critics it rivals the Cathedral of Milan. Certainly the

Gothic style of architecture is beautifully adapted to sacred edifices. When one wanders through the aisles of this cathedral, it is easy to imagine himself in a forest of marble trees for the arches overhead, with their ornamentation, seem the branches of tall trees, their foliage mingling in the sky. Add to this the charm of a beautiful organ, whose sound steals seemingly from a heavenly source, and we form an idea of the interior of this magnificent church.



An Innocent Abroad



The Village Smithy



Feeding Time

WITH THE CAMERA IN MID-AIR.

WILLIAM A. EDDY, the kite flyer, describes in the June St. Nicholas a successful attempt to photograph the Statue of Liberty in New York harbor. The statue is situated on a very small island in the centre of a star shaped disused fort completed November 9, 1814. The fort is so large in proportion to the size of the island that on three sides of the statue there is only a narrow roadway adjoining the water.

Says Mr. Eddy—"I found it impracticable to fly kites from the interior of the old fort, from which the pedestal and statue projects, because the high stone walls of the fort are surrounded with deep moats, which are accessible only from two narrow entrances. I had already decided that I must send my camera up into the air from the ground, and at a distance from the statue, out over the water.

The only winds sufficiently strong and steady to maintain the kites aloft during the several hours necessary for aerial photography were from the west and north, while the statue, with its torch 328 feet above the water, faces eastward, and owing to the direction of the wind I was compelled to send up my camera-sustaining kites from the south side of the statue and from the narrow path which passes along the high bank outside of the fort. This pathway curves so rapidly that in laying out my line to send up the first kite I was at once forced to swing the kite sidewise over the water which laps the base of the high stone wall bounding the Island. I had thirty-five kites, five, six and seven feet in diameter, and a powerful reel with a steel shaft. This large supply of kites seemed to me necessary, because I believed that my experiments over the water would result in the loss of some of the kites—perhaps a whole tandem line of them. I had planned to take as many pictures as possible during a week's vacation.

Of the six days during which my kite experiments were carried on, three were not favorable for photography, and on

the other three the wind was so high that two kites were torn to pieces in the air and two were driven into the water and partly destroyed by being hauled ashore over the wave-washed rocks.

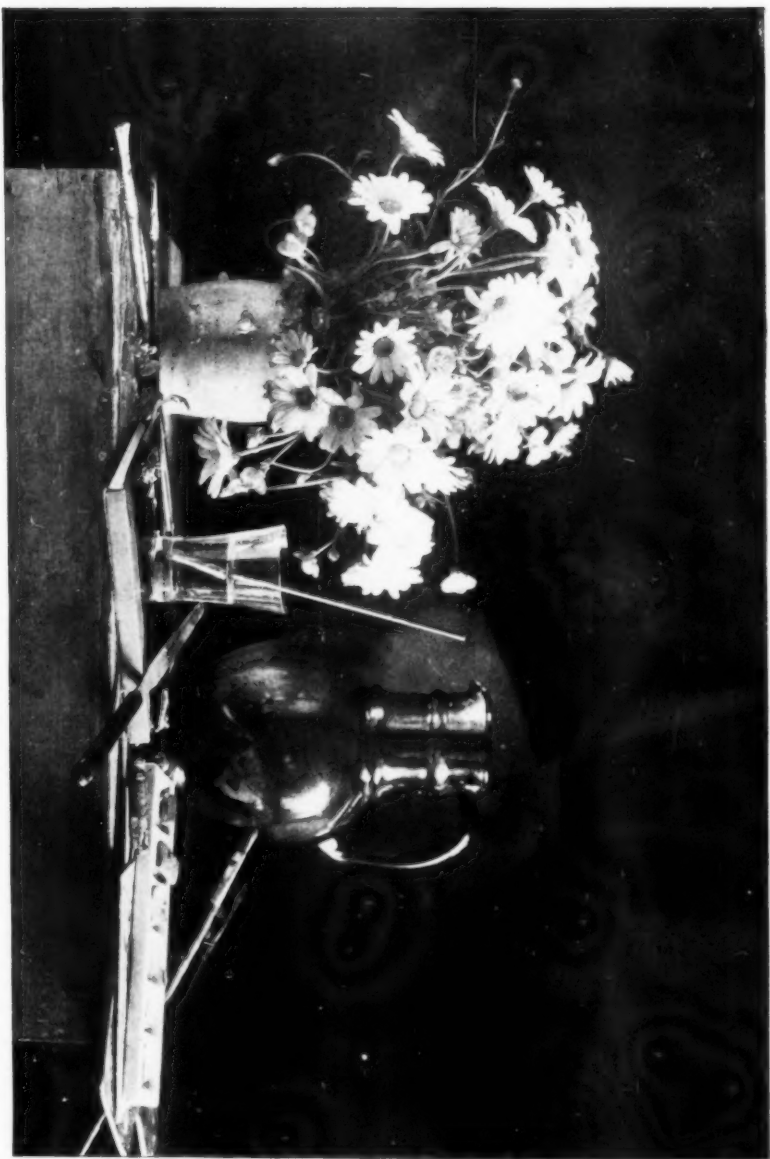
By using kites with very stout frames I finally succeeded in maintaining my camera aloft during several hours on two days, but so powerful was the wind that all the lifting was done with two tailless kites six feet in diameter, flown tandem, each kite with its individual line radiating from the trunk of a tree. Each branch of string had a kite at the end of it.

My camera, which, with its bracing frame weighs about three pounds, is wood, which can be set to point in any direction, regardless of the direction in which the kites are flying. Before it left the ground I pointed it back at the statue and braced it rigidly into the upward slanting kite-cable.

When this kite-cable was paid out, the camera, being part of it, like a knot, went upward, exerting a fifty to seventy-five pound pull, and it moved out over the water to the eastward and away from the statue. As I continued to let out the kites, the camera rose higher than the torch of the statue. When the camera had gone as high as I dared to send it—for the higher it goes the greater and more dangerous is the pull—I snapped the shutter and took the picture by means of a special thread, separate from the kite-cable. I pulled this thread, standing at a point by the sea wall nearer the camera than where the kite-cable was held by the reel, which was pinned to the ground with iron pins.

When the conditions were not good for photography I sent a long, looped copper wire fastened to a sheet of tin foil up the main cable, whereupon a quarter inch electric spark was drawn to an iron pin driven into the ground; but if I carried the kites and wire too near the immense bronze mass of the statue, then the electric spark invariably disappeared. This was tried on three different days, proving that the statue clears the air of electricity within about 100 feet of it on all sides.





A Study

JOHN BARTLETT



A Fight

LITTLE KNOWN RADIATIONS. THE BECQUEREL RAYS.

SINCE the observation of Mons. Henri Becquerel, now some three or four years ago, that metallic uranium and its compounds emit invisible radiations which have power to act on a photographic plate, much attention has been given by numerous observers to radiations of this class. Leaving on one side the so-called dark radiations which were supposed to exist in sunlight, etc., and the effects of which were really due to the difficulty of finding a substance truly opaque, and on the other side the effects produced by vapours so ably investigated by Russell, we propose to give a short summary of the more important later results concerning the radiations which are similar to those from uranium, and which are appropriately known as "Becquerel rays."

The most striking properties of these rays are (1) their power of affecting a photographic plate, so that it becomes amenable to development as if it had been exposed to light, and (2) their power of promoting the discharge of an electrified body which is in contact with the air—a result supposed to be due to an effect of the radiations on the air of such a nature that the air becomes a much better conductor of electricity.

Becquerel believed at first that he had obtained evidence that the rays could be polarised, and were therefore similar to light and different from Röntgen rays, but other observers failed to confirm this result, and later experiments of his own led Becquerel to the conclusion that his first conclusion was erroneous, and that the rays cannot be polarised.

Many of the observations on record relate to the passage of the rays through various thicknesses of different substances, these experiments being made with a view to ascertain whether the radiations are homogeneous, or are made up of different kinds of radiations with different properties. Experiments by Rutherford, for example (*Phila. Mag.* [5], 47, page 109),

seem to show that the radiation from uranium oxide is of at least two kinds—one distinguished as *b* radiation passing through metallic aluminium and other substances more readily than the other, which is called the *a* radiation. The intensity of the latter seems to depend entirely on the surface of the radiating compounds, whilst the intensity of the former depends on the thickness as well as on the surface. The penetrative power of the *b* radiation was found to be about equal to that of the rays from an average X ray bulb, but much below that of the rays from a "hard" bulb.

J. Elster and H. Geitel, who have done much work in this direction, regard Becquerel rays as X-rays of low intensity (*Wiedemann's Annalen* [N.S.], 69, page 83). They find that the intensity of the radiation is unaffected by artificial means, such as heating or subjecting to electrical discharges, and, moreover, the radiation from one and the same substance retains its intensity unchanged for very long periods of time.

Madame Sklodowska Curie, F. Giesel, and others have found that other substances share this remarkable property of uranium, and even emit rays of much greater intensity. The bismuth obtained from a sample of pitchblende from Joachimsthal was found to emit rays of much greater intensity than those from any uranium compound, and since pure bismuth has no such property, the effects observed must be due to some impurity in the bismuth.

The general result of all the observations has been to show that from solutions of many, though not all, uranium minerals, it is possible to isolate two apparently distinct substances—one which is known as polonium, having affinities with bismuth, whilst the other, which is known as radium, has affinities with barium. Spectroscopic observations seem to show that radium is really a distinct substance, and this is supported by analytical evidence. The intensity of the radiations from material containing polonium or radium is very much higher than anything of the same kind observed with uranium compounds. It is sufficient to make barium platinocyanide quite distinctly luminous. One very peculiar property of the substances emitting the more intense radiations is that they are distinctly luminous in the dark, and this will hold good, even of uranium potassium sulphate, if it is in a fairly thick cake. The result

seems to be due to the radiation from some particles affecting those near them, the action being, as it were, reciprocal; the phenomenon is known as "auto-luminescence." It is observed, for example, with barium platinocyanide prepared from barium containing radium, but it ceases after a time, because the salt gradually changes into a different molecular condition.

What is the source of this remarkable and persistent radiant energy? The fact that the property is shared by very different compounds of the same radio-active element indicates, as Elster and Geitel pointed out, that the cause must be sought for in the atomic motions of the element rather than in the molecular motions of the compounds, and they suggest that the radiation may be associated with an extremely slow change from an unstable to a stable molecular condition or structure.

Further complication is, however, introduced by the remarkable observation first published by Giesel and afterwards confirmed by the Curies, that if the salts of very active barium mixed with radium are crystallised from aqueous solutions, the crystals at first show very little radio-activity, but the intensity of the radiations gradually increases and becomes constant after a few days or weeks. On the other hand, if the active salts are dissolved in a small quantity of cold water, the solution at first shows radio-activity, but gradually loses it altogether. If now the salt is recrystallised from the solution, it slowly regains its activity in the manner already described.

Against the view that the radiation is due to atomic motions there is also the fact that uranium potassium sulphate is more active than uranium itself.

Thorium and its compounds have also been found to be radio-active, the radiations having similar properties to those from uranium, but having also greater intensity and greater penetrating power. Such differences as have been observed are differences of degree rather than differences of kind.

Mons. and Madame Curie have found that the radiations from the most active preparations convert the oxygen of the air into ozone. They have also made the remarkable observation that when various substances are exposed to the radiations from preparations containing radium or polonium, they acquire the property of being radio-active, and the intensity of their radiations increases up to a certain point with the time

during which they are exposed to the action of the exciting material, but beyond that point the intensity does not increase. The bodies so excited retain their radio-activity for several days. The Curies concluded that these results were due simply to the effect of the radiations as such. Later, however, Rutherford has obtained similar results, but his experiments seem to show that the induced radio-action is due to a vapour emitted by the original preparation and condensed on the surface of the excited substance.

It will be seen that the problems presented by these very remarkable phenomena are highly complicated, and at present are far from being solved. That they are of the greatest scientific interest, and at the same time of considerable practical importance to photographers, is obvious.—*Photography*.

Don't.—Don't drop matches on your dark room floor, but have in a convenient corner on the floor, an old metal bucket or large biscuit tin, into which matches and broken negatives can be dropped out of harm's way.

Don't put down on the table or sink any cork or stopper from a bottle where it will gather up dirt and contaminate the contents of the bottle.

Don't make up a formula until you have first written out a label and stuck it on the bottle. It is so easy to say "I will label it to-morrow," "I shall easily remember the proportions," "I shall not confuse it with my other bottle." But it's much easier to forget.

Don't throw away a spoiled negative or print until you know what was wrong, what caused the mischief or mistake, and how to remedy and avoid it in future.—*St. Louis and Canadian Photographer*.

DESICCATED DRY PLATES

*A Paper Read Before the Photographic Convention of the
United Kingdom*

BY HOWARD FARMER

IT is well known that dry plates, as ordinarily used, retain a considerable percentage of water, mainly in molecular combination with the gelatine. I find that the presence of this water in the film at the time of exposure has a large influence on the image, all the chief characteristics, *i. e.*, definition, detail, density, speed, time of development, etc., being affected. Moreover, very small differences in the quantity of this moisture materially affect the result, so that negatives vary with the atmospheric conditions, as to temperature and humidity, at the time of working.

The drier the film, the better the definition and the greater the power of rendering fine detail; in lesser degree, the greater the speed and facility of developing density.

This property of the film can be utilized by desiccating plates for work where definition, detail, brilliancy, or maximum speed are desired, and in exposing plates wet where softness of image or the destruction of small textures and details are sought for. Extra-rapid plates or orthochromatic plates, in which the former of these qualities are usually found lacking, gain them when thoroughly desiccated to an extent hitherto only found in wet collodion or other specially prepared films.

A perfectly flat-topped kettle containing boiling water is a convenient appliance for desiccating plates. They are simply laid on the flat top of the kettle with a piece of bibulous paper between to equalize the heating, and kept there a few minutes at a temperature of 200° before being placed in the slides, or a thick copper slab with an asbestos cover can be used. Too great or too prolonged heating will crack the film or induce fog.

Desiccated plates have been (with increasing satisfaction) in daily use here at the Polytechnic for several months past, and are already widely adopted in the trade and for scientific work.—*British Journal of Photography*.

THE NATIONAL CONVENTION

THE National Convention was called to order by President Stein on Tuesday, July 24th, and the members were welcomed to Milwaukee in a neat and somewhat humorous speech by the mayor, the Hon. D. S. Rose, after which the president delivered what has come to be known as the annual address. Its keynote was in the invocation, "Fellow Craftsmen," and it included much good advice, the following of which should be helpful in the struggle for success.

Mr. W. I. Scandlin, editor of *Anthony's Bulletin*, followed with a lecture on "The Progress of Photography," succeeded by Professor O. W. Beck, Curator of the Fine Arts Academy, Cincinnati, on "What Are the Principles of Beauty in Art," illustrated; the doings of the day winding up with free admission to see "The Highest Bidder" in Davidson's Theatre, the whole house having been bought for that purpose by the Milwaukee State Association.

The business of the second day included the reports of the treasurer and secretary, a paper by B. J. Falk on copyright as affecting photographers and action thereon, a talk in his usual style by Professor A. H. Griffiths, and a visit to the Layton Art Gallery, with Professor Edwin C. Layton, its Curator, as guide and critic.

On the third day, Thursday, Detroit was selected as the place of meeting in 1901, and then followed the election of officers:

President, E. B. Core, New York; first vice-president, D. D. Spellman, Detroit; second vice-president, H. S. Klein, Milwaukee, and secretary, J. G. Nussbaumer, Rochester.

On the fourth and last day the following prize list was reported, from which it will be seen that in addition to the "figure bust" and "figure head" only seventeen medals were awarded, a decided improvement on some former years, in which the awards were almost as numerous as the exhibitors:

LIST OF AWARDS OF PRIZES.

Grand Portrait Class.—First prize, Moore & Stephenson, Atlanta, Ga., life-size figure bust. Second, Dudley Hoyt, Rochester, N. Y., gold medal. Third, J. E. Giffin, Wheeling, W. Va., silver medal. Fourth, E. C. Dinturff, Syracuse, N. Y., bronze medal.

Genre Class.—First prize, E. S. Curtiss, Seattle, Wash., figure head. Second, G. Moses & Son, New Orleans, La., gold medal. Third, Baker Art Gallery, Columbus, O., silver medal.

Miniature Class.—First prize, I. Benjamin, Cincinnati, O., gold medal. Second, D. Rosser, Pittsburg, Pa., silver medal. Third, Dudley Hoyt, Rochester, N. Y., bronze medal. Fourth, G. Moses & Son, New Orleans, La., diploma.

Class A.—First prize, Elias Goldensky, Philadelphia, Pa., gold medal. Second, A. F. Proctor, Huntington, W. Va., silver medal. Third, W. M. Morrison, Chicago, Ill., bronze medal. Fourth, E. S. Curtiss, Seattle, Wash., diploma.

Class B.—First prize, E. E. Dexter, McKeesport, Pa., silver medal. Second, A. F. Proctor, Huntington, W. Va., bronze medal. Third, C. S. Bateham, Norwalk, O., diploma.

Class C.—First prize, Louis Schreiber, West Bend, Wis., silver medal. Second, J. F. Denninger, Neenah, Wis., bronze medal. Third, A. L. Jackson, Tacoma, Wash., diploma.

Landscape Class.—First prize, H. C. Myers, Boise, Idaho, silver medal. Second, J. H. Field, Berlin, Wis., bronze medal. Third, Robert Wilkinson, Montpelier, Vt., diploma.

Marine Class.—First prize, Charles E. Bolles, Brooklyn, N. Y., silver medal. Second, H. R. Fitch, San Diego, Cal., bronze medal. Third, H. H. Morrison, Seattle, Wash., diploma.

Professor O. W. Beck delivered an illustrated lecture on "Lighting," and the convention was brought to a close by another of Professor Griffith's "Talks," which are always amusing.



BUSINESS NOTES

The Eastman Kodak Co., received the Grand Prix at the Paris Exposition for their exhibit. No other American or English manufacturer of photographic materials received this award, which speaks very well for the Eastman Co. Indeed, the Grand Prix is the highest award obtainable and places the company above competition. They got no more than they deserve, however, as their goods could only merit the Grand Prix.

New Institution for the Amateur Camera Operators.—Mr. F. W. Guerin, who has done so much for the advancement of photographic art in St. Louis, will, the first of November, establish a college of photography, which will enable those so desiring, to get a practical education in this art, from foundation to finish.

The building at the northwest corner of Twelfth and Olive streets has been secured, and will be remodeled, and refitted.

Instructions will be given in everything pertaining to photography. Mr. Guerin has secured an able corps of assistants, and classes in operating, developing, printing, toning, retouching, coloring, fancy pictures, and in flashlights will be formed at once.

The ground floor of the building will consist of the parlors, reception rooms and display room and will be in charge of Miss L. Roe, who will instruct the pupils in the reception room work.

The second floor will have the retouching and operating rooms. The operating rooms will be in charge of Mr. F. W. Guerin, assisted by Mr. Felix Raymer. Mr. C. E. Herman will have charge of the retouching.

The finishing room will be on the third floor under the direction of Mrs. T. Kloepper. The fifth floor will be given over to Mr. E. J. Tierney, who will instruct the classes in printing. Mr. F. W. Guerin, Jr., will be secretary and treasurer of the college.

The latest catalogue of Jas. H. Smith & Co., 311 Wabash Avenue, Chicago, is to hand. It lists everything photographic and really is something that every amateur should have. This is one of the oldest established houses in the country, and their goods have secured a reputation on their merits only.

The Manhattan Optical Co., inform us that the demand for their "Wizard" cameras, of late, has exceeded their output. We do not wonder at this, considering the extremely low price at which they sell their goods, in proportion to the quality of their cameras. One who wishes a really good, substantial and reliable instrument has only to try a "Wizard" to be satisfied.

Another new platinum paper has been placed upon the market and this time by the American Aristo Co., of Jamestown, N. Y. We hardly think it worth while to say that we think this is the best paper of the kind we have ever tried. Everyone knows what "Aristo" products are, and this last paper most certainly excels in beautiful results. The working of this paper is very simple, the developing being done with neutral oxalate of potash and water. New platinum papers seem to be very abundant of late, but few of them are of any value. The "Aristo" American platinum paper should command a large sale when better known.

The Announcement of the G. Cramer Dry Plate Co. will revolutionize the method of handling dry plates. See their advertisement.

NOTES OF SOCIETIES

The New York Society of Amateur Photographers will hold a reception at the Hotel St. George, Brooklyn, on Tuesday evening, November 16th. This affair is to eclipse all of its predecessors and will be the leading event of the season in New York. Tickets can be had gratis of L. C. Blancke, chairman, 176 Baltic Street, Brooklyn.

RECENT PATENTS RELATING TO PHOTOGRAPHY

- 656,084. Means for reproducing multicolor designs, Anton von Beust, Orange, N. J.
- 655,712. Photochromoscopic apparatus, Frederick E. Ives, Philadelphia, Pa.
- 33,059. Design, card mount, John P. Odgers, assignor to A. M. Collins Manufacturing Company, Philadelphia, Pa.
- 33,060. Design, stereoscopic picture holder, Henry E. Richmond, North Bennington, Vt., assignor to E. and E. B. Underwood, Summit, N. J.
- 656,342. Picture frame, Robert Carlton, Jonesborough, Ark.
- 656,526. Holder for pictures, stationery, or other articles, Wm. H. H. Dickinson, Missoula, Mont.
- 656,762. Apparatus for taking and reproducing animated scenes and sounds, Auguste Baron, Asnieres, France.
- 656,769. Producing photographic negatives, Rudolph M. Hunter, Philadelphia, Pa.
- 656,751. Sensitized photographic paper, Arthur Schwarz, Steglitz, Germany.
- 656,798. Photographic camera, Charles A. Wily, Miles City, Mont.
- 657,437. Focussing camera, Joseph D. Morley, Lake Pleasant, N. Y.
- 657,505. Automatic photographic apparatus, Edwin J. Ball, Hull, England.
- 657,544. Easel album, Christian Jaeger, Philadelphia, Pa.
- 657,555. Kinetographic film, Siegmund Lubin, Philadelphia, Pa.
- 657,833. Photographic shutter, Henry M. Reichenbach and J. Schadeli, assignors to Reichenbach, Morey & Will Co., Rochester, N. Y.
- 657,569. Photographic camera, Jacob Schaub, assignor of one-half to A. B. Hower, Logan, Utah.
- 657,749. Device for uniting celluloid to photographic prints, Eugene W. Silsby, Chicago, Ill.
- 657,685. Photographic exposure meter, Alfred Watkins, Hereford, England.

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